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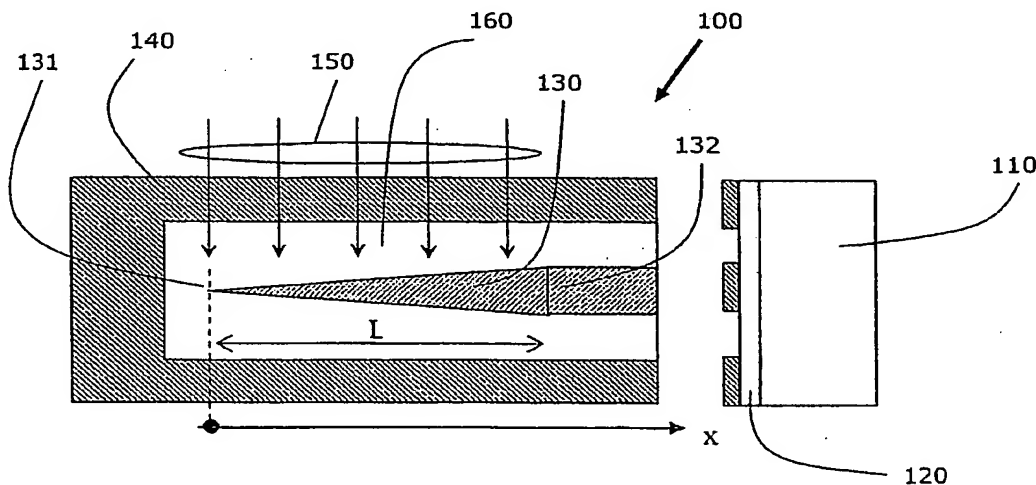
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(54) Title: **A DETECTOR FOR DETECTING ELECTROMAGNETIC RADIATION**



(57) Abstract: The invention relates to a semiconductor detector for detecting electromagnetic radiation, comprises a semiconductor junction formed by a layer arranged on a substrate. A first and a second electrode are arranged on the layer adjacent to each other and separated by an exposed area of the layer arranged to receive electromagnetic radiation that has an incident angle with respect to the surface of the substrate. Received radiation is transformed to a travelling wave that propagates along the first electrode towards the output end of said first electrode. The detector comprises at least a first tapered structure arranged on the substrate to slow down a signal received from incident radiation at a given cross section of the first electrode, compared to signals received at any preceding cross section of the first electrode, which reduces the phase difference between the received signals so that they sum up substantially in-phase at the output end of said first electrode.



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